Water Pollution Control Advisory Council (WPCAC) Meeting
November 6, 2003 9:30 a.m.-12:30 p.m.
Directors Conference Room 111 Metcalf Building

Attendees:

Council Members:
Barbara Butler, Billings Solid Waste Division
Shannon Dunlap, Golden Sunlight Mines, Inc.
Marc Lorenzen
Terry McLaughlin, Smurfit-Stone Container Corp.
John Schwarz, Schwarz Architecture & Engineering Inc.
Scott Seilstad
Don Skaar, Montana Chapter of American Fisheries Society
Peggy Trenk, Montana Assn of Realtors
Robert Willems, Soil & Water Conservation District

Other Attendees:
Bob Bukantis, Department of Environmental Quality (DEQ)
Chris Levine, DEQ
Bonnie Lovelace, DEQ
Eric Regensburger, DEQ
John North, DEQ
Don Allen, WETA
Jim Domino, Department of Natural Resources and Conservation
Gail Abercrombie, MT Petroleum Assn.

Approval of Agenda

Chairman Terry McLaughlin called the meeting to order at 9:30 a.m. The agenda was approved as written.

Approval of Minutes

Minutes for the August 28, 2003 meeting were not included in the packet. Approval of the minutes was tabled until the next meeting.

Action Items

Recommendation to amend water quality standards for the classifications D-2, E-2, E-5 and F-1

Chris Levine said the process to develop new standards for new classifications for low flow streams began two years ago. The new standards and classifications went though rulemaking and four of the eight classifications were approved. The purpose for developing the new classifications was to afford relief from stringent aquatic life criteria standards for waters that lack aquatic life because they are ephemeral or have low flow due to a point source discharge. The Board of Environmental Review (BER) adopted the standards. When EPA received the rule package as adopted by BER, EPA headquarters and the Region VIII office decided that the protection afforded for low flow streams and ditches that receive continuous discharge was not sufficient to protect aquatic life that could occur in these situations. The Department and EPA entered into negotiations to determine how to correct the situation without having EPA promulgate the disapproved standards as indicated in the Clean Water Act (CWA). DEQ decided to make amendments to the BER adopted rules to keep EPA from having to promulgate the standards. EPA will wait for DEQ to go through our process. The changes will make the standards and classifications more stringent than originally adopted.

Terry McLaughlin asked if the primary reason these four classifications were not accepted by EPA was because the ammonia criteria was not included?

Chris Levine said the ammonia criteria were explicitly not applied in the original standards. EPA wants to include all acute and chronic aquatic life toxicity criteria standards. The original standards had only the acute toxicity standards for aquatic life. The only deviation is non-priority pollutants (NPP). Through a use attainability analysis (UAA) the Department can determine a reduced value or remove that particular standard. For example, ammonia is a NPP and the value could be modified for chronic and acute or not applied for certain situations as determined by the UAA.

Don Skaar asked what is the distinction between a priority pollutant (PP) and a non-priority pollutant?

Chris Levine said the priority pollutants are considered critical pollutants and are listed in the CWA as minimum criteria EPA had to establish. EPA developed another list they called non-priority pollutants. DEQ is proposing to identify the aquatic life criteria as PP or NPP in the numeric water quality standards (WQB-7). EPA adds new criteria to the WQB-7 as needed which are called 304(a) criteria.

John Schwarz asked for application purposes, if there is a wastewater treatment plant discharging effluent flow during a portion of the year to a ditch that is normally dry, how would the permitting be applied to the bulk of those permits?

Bonnie Lovelace said historically DEQ has had to take the most stringent setting for the limit a permit must meet. In recent years DEQ has begun to look at situations on a seasonal basis. If these new standards and classifications get adopted, DEQ will determine if the seasonal approach may be used. The current classifications indicate that if the watershed is classified as B1 then all waters must meet B1 standards unless the water is ephemeral then certain standards do not apply. The proposed rule changes allow DEQ to look at individual streams and tributaries and give them a different classification. Streams are not automatically reclassified when these rules are adopted but will be reclassified upon request.

John Schwarz asked if the sampling point would be at the direct point of discharge as opposed to the current sampling point of where the discharge meets the perennial stream?

Bonnie Lovelace said historically the permits were written to have the sampling point at the first live water and where the standards were to be met. DEQ made the determination that the standards were not being applied properly at the right place because the small ditches and small streams are also considered state waters. DEQ realized that some permitted discharges are now out of compliance and needed to determine how to resolve the issue. Older permits were technology based permits and are not necessarily meeting standards so water quality based limits must be applied to those permits. A designated mixing zone for a certain distance where standards could be exceeded will be determined and from there sampling points will be set. Existing mixing zones may be kept. Under the new classifications, standards for that particular

classification must be met in the seasonal stream regardless if it is usually a dry channel. Each permit through the permit process will need to specify how much monitoring is needed and where it should be done for that particular site.

Terry McLaughlin said to summarize things; any particular ephemeral stream is under an existing classification. If these new classifications are adopted, the classifications are there but the water retains its existing classification until some entity pursues having it reclassified. At that time the Department is charged with doing a UAA to determine what category is has to fall under and whether it can meet the beneficial uses that are to be established.

Scott Seilstad asked if a town like Geraldine currently has a lagoon type wastewater treatment system in place, would these new classifications benefit or hurt the town?

Bonnie Lovelace said that Geraldine determined there was a leak in a tank causing the stream to become "artificially" perennial when it was naturally an ephemeral stream. Geraldine may not pursue a new classification now that the leak has been fixed. Other communities with lagoons will most likely pursue the new classifications.

Chris Levine said the new classifications are less stringent than existing classes because the new classifications have fewer beneficial uses. They will benefit and provide relief to permitted dischargers if the discharge transforms an ephemeral water body into a perennial water body. If it remains completely ephemeral than the new classifications would not be beneficial. The new classifications designate that downstream beneficial uses must be protected.

Terry McLaughlin said these classifications were already proposed to EPA and EPA has approved four of the classifications. If the Department decides not make amendments to the rules, will EPA be required by law to make the revisions? In general, do these new eight classifications have the potential to be over-burdensome to small communities or other entities if the new classifications are applied?

Chris Levine said that EPA would make changes to the classifications and standards and promulgate them. The alternative is for the Department to repeal the four unapproved classifications out of rules. The only burden will be on the Department to do the UAAs.

Scott Seilstad asked how stable is the department and politics in regards to interpreting and implementing these classifications in the future?

Bonnie Lovelace said the process is laid out in a national process that EPA oversees. This process lends numerous opportunities for the public for comment and indicate if there is enough information to proceed to rulemaking. Standards are applied in permits that are periodically updated and renewed, which offers a public comment process.

Gail Abercrombie asked if in the proposed amended classifications the term "specific stream" could be clarified to indicate if it is a water body being reclassified or live water the reclassified stream flows into?

Chris Levine said the term "specific stream" will be changed to "the water body under consideration" for reclassification.

Terry McLaughlin asked if EPA is trying to link designated uses to water quality criteria and consider them the standard? In the UAA, is there a requirement that a cost-benefit analysis be included as part of that regime?

Chris Levine said that EPA in their guidance documents considers water quality standards to contain three components: 1) beneficial uses, 2) the criteria that support those beneficial uses, and 3) a non-degradation policy. In general the State consider classifications and designated uses as narrative standards subject to interpretation. A cost-benefit analysis is not a requirement of a UAA, but is one of the considerations that can be used.

John Schwarz said that an initial cost-benefit analysis should be added as a requirement to the UAA as well as considerations to long-term maintenance and operation cost.

Terry McLaughlin said that the EPA approval/disapproval letter states that EPA has determined these four classifications are not adequately protective of aquatic life uses. The new classifications with their assigned designated uses and associated water quality criteria are inconsistent with the requirements of the Clean Water Act. EPA's main concern was the standards did not offer enough protection to protect any form of aquatic life that may develop when there is water in these areas. EPA indicated that the proposed resolution would to simply apply the acute and chronic water quality criteria in WQB-7 for aquatic life to those classifications and include the narrative "free from" criteria applicable to aquatic life use protection. These classifications are potentially beneficial to the state in the long run from a flexibility standpoint by not having the ephemeral water bodies in the general classification scheme.

A motion to recommend the Department proceed with bringing these proposed revisions to the Board for their consideration and approval was made. The motion was seconded. All members present were in favor of this motion. The motion carries and the recommendation to the Department is to proceed as they have requested.

<u>Proposed revisions to non-degradation rules (ARM 17.30 sub-chapter 7) regarding criteria for determining nitrogen reduction efficiency of subsurface wastewater treatment systems</u>

Bonnie Lovelace said level two treatment dealing with nitrate is referenced in the statute and gives specific direction and numbers to be applied in permits. DEQ wants to develop a way for level two wastewater treatment systems to meet the treatment requirements in the statute, and for those requirements to be fairly and consistently applied for those submitting applications and engineering designs. Non-degradation requirements may lower the standards a permit must meet to prevent degrading water quality. In Montana a permit generally cannot make the water more than 15% worse than its original condition and cannot allow exceeding water quality standards. A non-degradation analysis determines how much degradation occurs and if it is significant. Level two treatment in the statute indicated that if a discharger treats nitrogen better, then the discharger can pollute more, yet still be below the standards.

Eric Regensburger said the reason for allowing those who treat nitrogen better to pollute more was to promote the use of level two treatment systems. Level two treatment specifies allowable levels for total nitrate measured as nitrogen but does not require other pollutants to be removed. Levels for other pollutants must still meet water quality standards or nondegradation limits. Larger systems require permits that must meet specific standards where smaller systems do not require permits.

Marc Lorenzen said he was concerned about how much thought has been in allowing a larger discharged just based on nitrate you are essentially allowing more of everything else that isn't required to be treated by this enhanced process to be significantly greater, such as phosphorus, drugs and everything else that goes through a system. Just because you have removed nitrogen does not mean you have removed anything else.

Eric Regensburger said that it is correct that other pollutants such as phosphorus do not get removed more so the discharge may have more phosphorus in it. There are still requirements that need to be met for phosphorus. Other things in the wastewater like pathogens may be treated better by some of the level 2 treatment systems.

John Schwarz said there are safeguards in place that will help protect waters. A subdivision with 500 homes put on a level two treatment system may have a higher concentration at the discharge but the net nutrient load into the ground water would be reduced.

Eric Regensburger said this proposed rule is intended to be more flexible, it does not require influent sampling and bases treatment level on effluent concentrations. Included in this proposed rule are more definite criteria for data requirements and sampling locations that need to be met in order for the system to be considered level two treatment. Currently there are several different treatment systems, primarily sand filter treatment systems, which are approved for level two treatment. There are several vendors developing proprietary systems that want to get level two treatment system approval from the Department. These proprietary systems are easier and cheaper to install and maintain than the sand filter systems. The primary reason level two treatment systems are installed is to meet the non-degradation requirements for nitrogen.

Bonnie Lovelace said these proposed rules do not list approved level two systems. The proposed rules lays out a scheme for approval for how much data is needed and what has to be demonstrated to prove that it is providing better treatment so vendors and developers can know whether their system meets the level two treatment requirements.

John Schwarz said if a developer is asked to implement this, the wastewater treatment system would be given to the home owner association or the utility that is going to maintain the system and would no longer involve the developer. If the technology fails in five years, it becomes the responsibility of the homeowner or association of homeowners to revise that technology.

Bonnie Lovelace said current law for subdivision review requires that a developer or homeowner must develop according to the subdivision approval received and the buyer is to be provided a copy of the approval. The county is responsible for inspecting the installation of the

system. Any future revision of the system must meet subdivision approval or go though the review process again to receive a new approval.

John Schwarz said if the drain field effluent is being tested, it shouldn't matter if the system is meeting level two treatment non-degradation requirements because the non-degradation is going to imply a certain annual load. Technology may be able to reduce the amount of flow into the drain field increasing the concentration but the annual flow will also be less. The concentration at the end of the mixing zone would still be the same. The Department should be specifying in the non-degradation requirements that the concentration must be met at the end of the mixing zone and not in the drain field.

Bonnie Lovelace said one controlling issue is that water quality standards must be met at all times. With the reduced flow and increased concentration there is the potential that under certain conditions water quality standards would be violated but as an average over the year it would not be in violation. The Department can't approve something that would possibly allow a violation of water quality standards for even short periods.

Eric Regensburger said the Department currently does indicate in each individual ground water discharge permit that the system must meet the requirements at the end of the mixing zone. The proposed rules are designed for approving a technology that can reduce nitrogen to a certain level, rather than measuring effluent rates/loads from each home site that uses a specific technology. The Department is requiring data from a few systems to act as a representative sample to show that the system does meet the level two treatment requirements. The Department cannot regulate how people use water so an assumed average value of water usage is used for the calculations. The type of treatment technology will determine what effluent concentrations will go into the mixing zone calculations.

Marc Lorenzen said he agrees that pressure-dosed drain fields make the system work better and last longer. These tanks have no effect on the total output of nutrients or other pollutants so why would they be a part of the calculations?

Eric Regensburger said that pressure-dosed drain fields provide better treatment. Pressure-dosed drainfields distribute effluent better, and allow more soil to contact the wastewater which provides better treatment. This is not accounted for in the equations but is better for the environment.

John Schwarz said it would probably be better to regulate the allowable load (expressed as lbs/day) that can be in the drain field rather than regulating the concentration.

Eric Regensburger said that DEQ does regulate the allowable load and makes an assumption of how much load the homes are putting into the drain field. This calculation gives the proof that the system can be approvable but DEQ cannot monitor every system to see if it is in compliance.

Terry McLaughlin said the council is being asked to comment on the categorization of the different types of treatment systems and how the Department would determine what category

the system would fit in: conventional, level 2, level 1a and level 1b. How does level 1a and 1b compare to level two treatment?

Eric Regensburger said conventional treatment produces a nitrogen concentration of 50 mg/L; level two treatment produces a nitrogen concentration of 24 mg/L. Two new categories were added in this proposed rule: level 1a with a nitrogen concentration of 40 mg/L and level 1b with a nitrogen concentration of 30 mg/L. Level 1a and 1b were added to give some credit for those systems that treat nitrogen but don't meet the level 2 concentration requirements.

Terry McLaughlin said there is some concern that the small percentage between the different treatment levels offers a small margin of error for determination of the level of treatment.

Eric Regensburger agreed that mathematically the margin of error and the standard deviation is small and may be hard to work with. The data collected will provide a single average number to classify the system type. Long term monitoring can allow a system to move into a different treatment level type.

Peggy Trenk said because development is occurring in more difficult areas, to have more options that are spelled out gives some comfort that a developer will get thought the process in a timely manner. The options may help costs go down and still provide adequate treatment.

Terry McLaughlin asked why do venders or manufacturers proposing these systems have to have had maintained an office in Montana for five years?

Bonnie Lovelace said the five-year requirement is to ensure the vendor or manufacturer is going to be there to help operate and make sure the system is going to work properly. The rule allows the vendor or manufacturer to demonstrate an equivalent level of experience or reliability to bypass the 5-year requirement.

A motion to recommend the Department move forward with these proposed revisions to the non-degradation rules regarding the sub-surface waste water treatment systems as proposed was made. The motion was seconded. Eight members present approved the motion and one member opposed the motion. The motion carries and the recommendation to the Department is to proceed as they have requested.

<u>2004 Meeting schedule</u>

Bob Bukantis said the Council meetings are scheduled to allow the Department to bring to the Council rules that will go to BER. This usually means scheduling meetings a month before BER meetings. BER will not determine their schedule for next year until their December meeting. WPCAC needs to determine the first Council's meeting date and at that point determine a schedule for the balance of the year. There is a BER meeting anticipated for late January 2004 and the Department does not anticipate the need to bring any rules to that meeting. A proposed date for the next Council meeting is Thursday, February 19, 2004.

Terry McLaughlin said that he recommends the Council accept the February 19, 2004 date as the first meeting in 2004. If there is a light agenda a conference call can be done in lieu of a meeting.

Briefing Items

Briefing on Arsenic

John North said the water quality standard for arsenic has very specific mandate provided for in the Montana Water Quality Act. The Board is supposed to set the standard for arsenic at a 10^{-3} (1 in 1,000) risk level and if the drinking water standard set by EPA in the federal rules (MCL) is more stringent than that, than the Board is required to use the MCL. The Board set an MCL of 18 µg/L as the standard. EPA has changed the rule pertaining to the MCL and indicated the current MCL (50 µg/L) will go to 10 µg/L effective January 2006. There is a statute in the Water Quality Act that indicates the Board cannot set standards that are more stringent than the federal standards unless it makes certain specific factual findings. The Board is free to set the standard at 10^{-3} or 18 µg/L until 2006 when the federal drinking water standard goes down to 10 µg/L. At that point the law requires the Board to adopt the 10 µg/L for arsenic. The matter was put on the Boards agenda but the Department asked to withdraw the item because the proposal was to go down to 10 µg/L now and DEQ legal staff determined it would mean being more stringent than the federal standard. The federal law said the MCL is 50 µg/L until 2006. Based on this statute the Board would have to make the specific factual findings, which the Board was not prepared to do at the time.

Terry McLaughlin asked if there was some previous discussion regarding waters in Montana that have naturally occurring concentrations above the proposed federal MCL?

John North said that there are waterbodies that are above the federal standards. The law in the Montana Water Quality Act setting the water quality standards for arsenic could not be more stringent than natural conditions but the MCL's apply to drinking water standards, which could be more stringent than natural conditions. Municipalities will be required to treat the water to meet the federal MCL of 10 µg/L.

Briefing on TMDL: TMDL Lawsuits

John North said the TMDL law requires the Department to develop a 303(d) list and establish a total maximum daily load (TMDL) for the streams on the 303(d) list. Federal law required the TMDLs to be developed by 1977. There have been a series of lawsuits around the nation focusing on TMDLs not being completed by this deadline. The Department's 1996 303(d) list included numerous streams that did not have a lot of scientific data indicating they were impaired. The Department worked on paring the list down to include only those streams for which there was good scientific data as per a statute passed in 1997. This revised 303(d) list was submitted in 2000 and approved by EPA. Another revised 303(d) list was submitted and approved by EPA in 2002. The Legislature provided funding and a deadline to complete all the TMDLs for all the impaired streams in the state by 2007. Friends of the Wild Swan filed a suit in the Federal District Court seeking to invalidate EPA's decision on: 1) which list to use; Friends of the Wild Swan wanted to use the 1996 list claiming EPA should not have approved the 2000 list; and 2) EPA should not have approved the pace of completing the TMDLs. Judge

Molloy held in favor of the Friends of the Wild Swan on both issues. The Ninth Circuit ruled that Judge Molloy was wrong in binding the Department to the 1996 list and upheld the decision invalidating EPA's approval on the rate of TMDL development. EPA and DEQ can go back to Judge Molloy and ask for a deadline extension by presenting evidence demonstrating that they could not get the TMDLs done by 2007. The Legislature has extended DEQ's deadline to 2012 but DEQ is still under order of Judge Molloy to complete the TMDLs by 2007.

There are three relevant sets of lawsuits currently filled. One lawsuit is on EPA's approval of DEQ's 2002 303(d) list. There is a challenge to the Lolo salvage timber sale because there is no TMDL for some of the waters in this area that are on the 303(d) list. There are several other suits filed asking to stop timber sales in other areas where there are waters on the 303(d) list but do not have a TMDL completed.

Briefing on TMDL: Role of STAG and EQC

Bob Bukantis said there is no rule making involved with the TMDL process. The Statewide TMDL Advisory Group (STAG) serve in an advisory capacity to the program. DEQ will be happy to respond to requests the Council may have for any updates or briefings regarding the TMDL program.

Scott Seilstad asked about a feedlot DEQ was not going to permit, is that because of the TMDL issue?

Bonnie Lovelace said the lawsuit on the feedlot was not a water quality issue but about MEPA. DEQ was challenged that we did not do a proper MEPA document. DEQ did a programmatic environmental assessment that evaluated a general permit. The lawsuit said DEQ could not use the general permit unless an environmental impact statement (EIS) was done and individual permits would have site-specific environmental assessment (EA). DEQ does not have the money to do an EIS and a programmatic EIS would still require site-specific EA on every general permit.

Briefing on storm water rules

Bonnie Lovelace said the rules for storm water has been completed and are in the implementation phase. Phase II Storm Water for municipal permits will be put out for public comment in the next few weeks. DEQ wants to look at the lawsuit on feedlots to ensure the general permit meets what it should before moving forward with it. The change in Phase II Storm Water that took the threshold for construction permits from five acres to 1 acre is working well.

Peggy Trenk asked if there were five one-acre lots it could be permitted under one permit?

Bonnie Lovelace said that several lots could be permitted under one permit called a common plan of development. Permits are charged for each discharge point, the application fee and the first year. For single residences there is a one-time cost of $250.

General public comment on water pollution control issues

Don Allen said the STAG group has been very concerned about the pace of the TMDL development. In regards to the timber sales, if it takes till 2007 there will be fewer that eight timber mills left in Montana. WETA has supported the watershed approach yet it is a problem in getting all the TMDLs done. WETA is also concerned about the CAFO general permit lawsuit and how it will affect other permits.

Agenda items for next meeting

Bob Bukantis said Bill Griffin wanted an update on the implications on the court ruling on the feedlot permit.

Adjournment

Terry McLaughlin adjourned the meeting at 12:25 p.m.